

# SURVEILLANCE AND MAINTENANCE

## RBSM

### The Requirements Based Surveillance and Maintenance Review Process

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#### Surveillance and Maintenance Overview

What is RBSM and why do I need this process?  
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### Surveillance and Maintenance Overview

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Overall direction for surveillance and maintenance of excess facilities is addressed in **DOE G 430.1-2, IMPLEMENTATION GUIDE FOR SURVEILLANCE AND MAINTENANCE DURING FACILITY TRANSITION AND DISPOSITION**. In addition, the change in mission and operation of an excess facility should stimulate a review of surveillance and maintenance to determine what efficiencies can be gained as a result of the change. Such a review can be applied to facilities that undergoing stabilization, those intended for deactivation, and others destined for decommissioning. The material that follows provides insights and methods for conduct of such reviews.

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### What is RBSM and why do I need this process?

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Significant S&M costs are associated with the caretaking of Department of Energy (DOE) facilities. In fact, analyses have shown that as much as 71% of a facility's programmatic funds may be consumed by surveillance and maintenance activities, many of which may be unnecessary or excessive.

A **requirements based review** of surveillance and maintenance (S&M) can lead to a reduction in S&M costs which can then be reallocated to deactivation activities. Typically, facilities have focused more on how to do tasks more efficiently as a means to reduce costs when the emphasis should **initially** be directed on determining whether these tasks need to be performed in the first place.

**What is needed** is a systematic process to establish a means for conducting S&M reviews and that will aid managers in understanding what drives the activities being done at their facility and how those drivers impact costs and their ability to get work done. The Requirements-Based Surveillance and Maintenance (**RBSM**) Review Process is an evaluative methodology that addresses the following objectives:

- **To provide** a systematic review method that can be easily used for a wide range of activities.
- **To categorize activities** based on cost reduction opportunities through a reduction in the required work.
- **To provide the information** needed to prioritize and allocate resources to improve the efficiency of S&M activities.

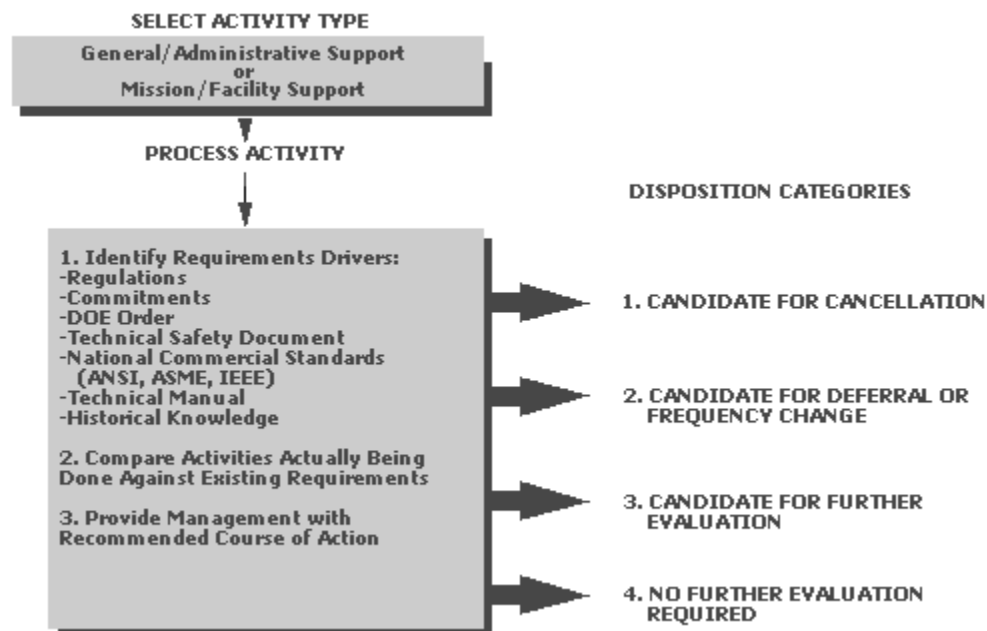
- **To identify the bases** (drivers) for conducting an activity and evaluate the conformance of the activity to the driver requirements.

**The scope of the RBSM Review Process** focuses on surveillance and maintenance activities. The following are definitions for surveillance and maintenance activities as defined in the EM budget B&R code structure:

- **Surveillance** - any activity at a facility that involves the scheduled, periodic inspection of a facility, equipment, or structure required by Federal and State environmental, safety, and health laws and regulations, and by DOE Orders. The purpose of surveillance is to demonstrate compliance, identify problems requiring corrective action, and determine the facility's present environmental, radiological, and physical condition. More specifically, surveillance includes activities to be performed to determine the operability of critical equipment, monitor radiological conditions, check safety-related items, provide for facility security controls, and assess facility structural integrity.
- **Maintenance** - any activity performed at a site or facility on a day to day basis that is required to sustain property in a condition suitable for the property to be used for its designated purpose and includes preventative, predictive, and corrective (repair) maintenance.

(Note: While corrective maintenance activities are defined as S&M, they are not candidates for review under the RBSM Review Process. These activities are performed on an as-needed basis and are driven by the condition of facilities or equipment, not requirements which specify the periodicity of performance.)

**Taken together**, these categories of activities comprise Surveillance and Maintenance (S&M). S&M is defined as an activity or set of activities at a site or facility that result in the effective management of hazards and that are necessary to obtain safe and secure conditions and to comply with applicable requirements.



**Figure 2-1** : Basic Description of the RBSM Review Process

**Once an activity has been identified**, the evaluator will proceed to determine the ultimate driver for that activity, i.e., the actual reason why it is being done. For the purposes of the **RBSM** review process, drivers at a site or facility are divided into seven categories:

A more complete listing of drivers that may affect your facility can be found [here](#).

- **Federal and State Regulations**
  - **Legal Commitments**
    - **Department Of Energy Orders**
      - **Facility Specific Technical Safety Documents**
    - **National Commercial Standards**
      - **Technical / Vendor Specifications**
        - **Best Engineering / Maintenance Practices**

This hierarchy goes from the most to the least consequences of non-compliance with the driver.

**For each driver category**, the why's and how's of that activity are explored in order to fully understand the need for conducting the activity, how that need is satisfied (methodology), and the frequency for conducting the activity.

**The RBSM Review Process** also seeks to determine if operations or conditions have changed significantly enough such that the driver is (or may be) no longer applicable to that activity. Further analysis is then applied to the specifics of each activity to determine such questions as whether regulatory requirements or commitments can be renegotiated, if the activity reflects changes made to the driver since the inception of the activity, or whether the activity is being conducted more rigorously than is required.

**Once an activity is reviewed by the RBSM process**, it will be grouped into one of four categories (disposition categories) to indicate a course of action for management to decide.

#### **Distinguishing Characteristics of each Disposition Category**

<b>Category Number</b>	<b>Category Name</b>	<b>Category Distinguishing Characteristic</b>
<b>1</b>	<b>Candidate for Cancellation</b>	<ul style="list-style-type: none"> <li>▪ No driver can be found for activity</li> <li>▪ Facility conditions have changed making activity unnecessary</li> <li>▪ Current or future mission of facility makes activity unnecessary</li> <li>▪ Strong criteria exists to support this recommendation</li> </ul>
<b>2</b>	<b>Candidate for Frequency Change</b>	<ul style="list-style-type: none"> <li>▪ Activity was being performed more frequently than specified by driver</li> <li>▪ Strong criteria exists to support this</li> </ul>

		recommendation
3	<b>Candidate for Further Evaluation</b>	<ul style="list-style-type: none"> <li>▪ Limited information on actual activity driver was available</li> <li>▪ Driver may not be appropriate for activity reviewed</li> <li>▪ Indeterminate criteria exists to support evaluation</li> <li>▪ Regulatory relief could or should be sought for activity</li> <li>▪ Driver interpretation may be incorrect</li> </ul>
4	<b>No Further Evaluation Required</b>	<ul style="list-style-type: none"> <li>▪ Activity scope and frequency was found to be valid</li> </ul>

**Together with driver(s)** for the activity, the general information provided on an activity assists management in identifying S&M activities that may be modified in frequency or scope, or even eliminated, to free up funding for mission-direct work. Additionally, because the process records the time required for performing each activity, it is possible for management to identify costs associated with activities being performed. With this information, management is now able to better determine the precedence for further reviewing the activities or group of activities identified with the **RBSM** review process.

**The outcome derived from this process** is the end of the evaluation of an activity. Management must still validate the recommendation from the **RBSM** process and make a final decision regarding disposition of that activity. The recommendation for disposition provides a starting point for facility management to concur with and implement the results of the **RBSM** process.

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## Who has used this process so far?

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**The RBSM Review Process** was first performed on a pilot basis at **Building 771** at the Rocky Flats Environmental Technology Site (RFETS). The purpose of this pilot was to test the process methodology and provide important feedback that would be used to enhance future reviews. As a result of this pilot, the RBSM methodology is now available for complex-wide use on this website.

**This table** lists the names of facilities that have conducted an RBSM review. Also included are the major areas that the review evaluated.

Facility	RBSM Review Areas
RFETS- <i>Building 771</i>	Environmental Compliance Production Operations Radiation Protection Industrial Hygiene Fire System Services Utilities
Hanford- <i>Building 324/327</i>	Maintenance Training Radiation Protection Nuclear Safety Emergency Preparedness Operations

Hanford- <i>Tank Farms</i>	Radiation Protection
Hanford- <i>K Basins</i>	Radiation Protection
Hanford- <i>Treated Effluent Disposal Facility (TEDF)</i>	Engineering Operations
RFETS- <i>Building 707</i>	Maintenance Industrial Hygiene Environmental Protection Waste Management Operations Fire Protection Management Systems Safeguards and Security Nuclear Safety Training Radiation Protection
Hanford- <i>Plutonium Finishing Plant</i>	Maintenance Operations Engineering
Hanford- <i>Tank Farms</i>	Operations Radiation Protection
SRS- <i>F Canyon</i>	Radiation Protection

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## A Summary of RBSM results across the DOE Complex

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**Below is a compilation** of results from each facility where an RBSM evaluation has been conducted. **And, of course**, the facility data is not presented in an order which would help to identify the name of the site reviewed.

**A Key to aid in the understanding of this table:**

- Column 1* provides a generic identification for that facility.
- Column 2* identifies the disposition category in which each recommendation was placed.
- Column 3* delineates the number of labor-hours spent annually performing the tasks within this disposition category.
- Column 4* expresses the number of labor-hours that could be spent performing the tasks within this disposition category after each recommendation for change is implemented.
- Column 5* shows the number of labor-hours that could be potentially saved by implementing all of the recommendations within this disposition category.
- Column 6* shows the percentage of recommended labor-hours saved per disposition category.
- Column 7* highlights the percentage of these potential labor-hours saved that fall under either Category 1 (Cancellation) or Category 2 (Frequency Change). This delineation is

important since recommendations made under Category 1 or 2 are considered "low hanging fruit"; in other words, these savings can be readily achieved with little effort from the affected facility (most require no more than a procedural change

Facility	Disposition Category Determined During RBSM Review	Annual Activity Labor-Hrs (pre-RBSM Review)	Annual Activity Labor-Hrs (post-RBSM review)	Potential Labor Hrs Saved	Percentage of Total Hours Saved	Percentage of Hrs Saved under Category 1 & 2
Facility A	1 - Cancellation	5505	0	5505	100%	
	2 - Frequency Change	11968	1999	9969	83%	
	3 - Further Evaluation	12591	8417	4174	33%	
	4 - No Further Eval	4100	4100	0	0%	
	TOTALS	34164	14516	19648	<b>58%</b>	<b>45.3%</b>
Facility B	1 - Cancellation	3921	137	3784	97%	
	2 - Frequency Change	188	92	96	51%	
	3 - Further Evaluation	11798	2978	8820	75%	
	4 - No Further Eval	15064	15064	0	0%	
	TOTALS	30971	18271	12700	<b>41%</b>	<b>12.5%</b>
Facility C	1 - Cancellation	0	0	0	0%	
	2 - Frequency Change	5590	1142	4448	80%	
	3 - Further Evaluation	21576	12424	9153	42%	
	4 - No Further Eval	2125	2125	0	0%	
	TOTALS	29291	15691	13601	<b>46%</b>	<b>15.2%</b>
Facility D	1 - Cancellation	199	2	197	99%	
	2 - Frequency Change	3496	1188	2324	66%	
	3 - Further Evaluation	7002	4503	2510	36%	
	4 - No Further Eval	9203	9147	56	1%	
	TOTALS	19900	14840	5087	<b>26%</b>	<b>12.7%</b>
Facility E	1 - Cancellation	4814	0	4814	100%	
	2 - Frequency Change	9131	2686	6445	71%	
	3 - Further Evaluation	19817	5001	14816	75%	
	4 - No Further	36068	36068	0	0%	

	Eval					
	TOTALS	69830	43755	26075	<b>37%</b>	<b>16.1%</b>
Facility F	1 - Cancellation	3493	72	3421	98%	
	2 - Frequency Change	6428	3929	2499	39%	
	3 - Further Evaluation	19493	9554	9939	51%	
	4 - No Further Eval	41026	40973	53	0%	
	TOTALS	70440	54528	15912	<b>23%</b>	<b>8.4%</b>
Facility G	1 - Cancellation	3921	137	3784	97%	
	2 - Frequency Change	35	35	35	100%	
	3 - Further Evaluation	11798	2978	8820	75%	
	4 - No Further Eval	15064	15064	0	0%	
	TOTALS	30818	18214	12639	<b>41%</b>	<b>12.4%</b>
Facility H	1 - Cancellation	7228	59	7169	99%	
	2 - Frequency Change	16067	5942	10125	63%	
	3 - Further Evaluation	26773	12996	13777	51%	
	4 - No Further Eval	12511	12471	40	0%	
	TOTALS	62579	31468	31111	<b>50%</b>	<b>27.6%</b>
Facility I	1 - Cancellation	0	0	0	0%	
	2 - Frequency Change	14560	4160	10400	71%	
	3 - Further Evaluation	23493	14076	9417	40%	
	4 - No Further Eval	0	0	0	0%	
	TOTALS	38053	18236	19817	<b>52%</b>	<b>27.3%</b>
Complex Wide		386046	229519	156590	<b>41%</b>	<b>19.4%</b>

And for those of you who say less is more, the following table provides an abbreviated version of the information above:

<b>Facility</b>	<b>Annual Activity Labor-Hrs (pre-RBSM Review)</b>	<b>Annual Labor-Hrs (Post-RBSM Review)</b>	<b>Potential Labor Hrs Saved</b>	<b>Percentage of Total Hours Saved</b>	<b>Percentage of Hrs Saved under Cancellation and Frequency Change Categories</b>
A	34164	14516	19648	<b>58%</b>	<b>45.3%</b>
B	30971	18271	12700	<b>41%</b>	<b>12.5%</b>
C	29291	15691	13601	<b>46%</b>	<b>15.2%</b>

D	19900	14840	5087	26%	12.7%
E	69830	43755	26075	37%	16.1%
F	70440	54528	15912	23%	8.4%
G	30818	18214	12639	41%	12.4%
H	62579	31468	31111	50%	27.6%
I	38053	18236	19817	52%	27.3%
Complex Wide	386046	229519	156590	41%	19.4%

#### But what about the implementation of these recommendations?

**The results are mixed**, but generally one pattern has seemed to emerge-- facilities will move quickly to implement those recommendations under categories 1 and 2 (Cancellation and Frequency Change) but will disposition category 3 recommendations (Further Evaluation) into some type of a long term improvement plan.

**Specifically**, we can share implementation data for a few facilities:

<i>Hanford K Basins</i>	Implemented 80% of the Category 1 and 2 recommendations within 2-3 weeks of the review.
-	Implemented 10% of the Category 3 recommendations within 3 weeks.
	Working on balance of Category 3 recommendations as time allows.
<i>Hanford PFP</i>	Implemented 50% of Category 1 and 2 recommendations within the first 6 months of the review.
	Implemented one savings recommendation <u>during</u> the RBSM review process (saving \$350,000 annually).
	On-going review of all recommendations.
<i>Hanford Radcon</i>	Implemented 50% of all recommendations within first year of review.
	Implemented an additional 25% during the next 6 months.

## Viewing a sample RBSM report

**When an RBSM review has been completed**, a facility will usually receive a two volume report outlining the results of the review process. Each volume has been designed to contain information that is most pertinent to a particular level of reviewer (in other words, the level of detail found in each volume has been tailored to the level of management accessing this information).

**Volume 1-** The purpose of this section of the report is to:



- 1) document findings from the conduct of the Requirements Based Surveillance and Maintenance (RBSM) review of your facility,
- 2) provide recommendations for capturing the savings identified, and
- 3) identify those additional areas where the RBSM process could be used to identify significant savings.

The results of this effort and the recommendations are provided to support decisions by your facility on the reallocation of identified savings to direct mission work.

**It is intended (designed for and anticipated) that upper management would normally read only this part of the RBSM report; therefore, this part is written as an upper level document.**

**Specifically, Volume 1:**

- Provides upper management with a synopsis of the RBSM recommendations being made. Such a synopsis might look like this

Activity Evaluation Result Category	Number of activities evaluated	Current resources utilized in man-hours per year	Recommended resources to be utilized in man-hours per year	Potential resource savings in man-hours per year
Cancellation	48	7,228	59	7,169
Frequency Change	76	16,067	5,942	10,125
Further Evaluation Needed	53	26,773	12,996	13,777
No Further Evaluation	51	12,511	12,471	40
Total	228	62,580	31,469	31,111

**Volume 1 will also:**

- Contain general background information about the RBSM process as it applied to your facility.
- Provide management with a summary or "big picture" look at opportunities and findings. (Volume 2 will then provide the specifics on where this is a problem and what is recommended to correct it.)

A few observations repeated throughout many facilities include:

*Lack of reliability-based engineering practices create over-conservative surveillance frequencies* - Without a reliability-based preventive maintenance (PM) program in place, engineering and maintenance organizations rarely review equipment or system performance to determine if PM frequencies can be extended. Equipment failure histories are seldom used to

set surveillance frequencies. Also, in most cases, PM frequencies were initially determined based on the vendor's equipment usage factors; but as missions change, equipment is seldom operated at the same rate as designed and specified.

*Unclear roles and responsibilities impact surveillance costs and oversight* - It is often difficult to determine what group or individual "has responsibility" for a surveillance activity and as such no one maintains control. Tasks go unreviewed for years. In other cases, multiple groups think they have responsibility and often duplicate oversight efforts. This duplication is often seen between the engineering staff and the licensing staff.

*Lack of facility integration is driving up costs* - This can be summed up by the saying "the right hand doesn't know what the left hand is doing." Different organizations are often performing similar tasks without either realizing this redundancy or without evaluating how one group might actually lesson the other's workload by combining or sharing tasks.

*Lack of worker and management acceptance of redundant computerized surveillance data* - Equipment and/or plant surveillance data is often automatically collected by computerized monitoring systems/components. However, due to a real or perceived problem with relying on computer data, workers or management often manually collect the same data.

*Over-conservative surveillance frequencies inflate surveillance costs* - Often the justification for doing a required surveillance at twice the true frequency, is that management would rather pay these additional costs than "bear the consequences" of missing a required surveillance. Management should rely on proper conduct of operations to ensure that required work is completed on time.

**Volume 2-** The purpose of this section of the report is to provide the reviewer with the details to substantiate the observations and findings given in Volume 1.

Normally the manager overseeing the RBSM evaluation will assign technically knowledgeable individuals to review the RBSM recommendations. The details provided in Volume 2 will allow this individual to understand the thought process behind the reviewer's disposition.

### Generating an RBSM Report

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**The RBSM review methodology derives** its recommendations through a structured "interviewer – interviewee" process. An *RBSM Evaluation Interview Form* has been developed to guide the interviewer in this process. Each evaluated activity is queried through the use of the interview form and the results of all interviews are entered into a database for analysis.

**The results of the analysis** are presented in two different formats, differing by the level of detail the reviewer requires. The first report is a spreadsheet identifying such identifying information as: name of activity, recommended disposition, and potential re-allocatable hours. The intent is to easily identify recommendations in a relatively brief format to follow. Details on how the recommended disposition was derived are presented later. The analysis of 100 activities could be efficiently shown on a seven page spreadsheet and is usually contained in Volume 1 of the RBSM Report.

An example of this report from the **RFETS Building 771 project**.

**And for the details**, the second report provides the reviewer with the full results from the interview, including a disposition justification section where the interviewer explains the "rationale" behind the recommended disposition for each activity. It is expected that this report will be used by individuals assigned to evaluate and implement the RBSM recommendations. An analysis of 100 activities typically requires 200 pages. The detailed reports are contained in Volume 2 of the RBSM report.

Although this report can be customized according to a facility's needs, a typical report has the following format:

**RBSM Evaluation Report  
United States Department of Energy  
National Facility Deactivation Initiative**

Report Number: 1

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Evaluator: _____	Interviewee: _____
Evaluator Organization: _____	Interviewee Organization: _____
Evaluator Phone: _____	Interviewed Phone: _____

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Facility Name:

Activity:

Function:	Drivers:
Other Functions:	Primary Driver:
Procedure:	Driver Required Frequency:
Directive Document:	Actual Field Performance:
	Hours of Labor per activity:
Required Personnel:	Annual Hours of Labor:
Other Personnel Affected:	

**Potential Re-allocable Hours:**

**Annually**

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Required/Actual Variance?

Facility Mission:

Brief Explanation of Facility Mission:

Outstanding Issues:

Projected Termination Milestone:

Disposition Recommendation:

Disposition Analysis:

Other Efficiencies:

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## Performing RBSM at your facility

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**An RBSM Review** can be performed at your facility in one of three manners:

- **An internal effort**

In this form, all individuals responsible for performing the interviews would be made up of personnel from within the facility being evaluated. Those individuals would be initially trained and mentored by experts in the RBSM process.

- **An external effort**

Under this format, the interviewers are composed of contract individuals from outside the site who are expert in the application of the RBSM process. A lead is assigned and reports directly to a facility manager.

- **A combined effort**

The lead interviewer is an expert to the RBSM process and the team is composed from a combination of on and off site personnel.

**Experience has shown** us that there are advantages and disadvantages to each of these. However, experience has also shown that the best overall method to ensure the greatest results in the quickest manner is to utilize an experienced, dedicated, unbiased, objective team totally composed of individuals from outside of the facility.

### Forming an RBSM Review Team

**A thorough review** of surveillance and maintenance and other activities and drivers at a facility requires the support of a review team that is experienced and knowledgeable of the facility management and Department of Energy practices. To this end, each team member conducting the interviews should generally have a background, that will support implementation of the review.

Recommended RBSM Review Team Background
Understanding the nature and conduct of the RBSM review process.
Experience with one or more of the following: fiscal year planning and budget implementation, training development and implementation, nuclear industry experience (in ES&H, radiological controls, hazardous and radioactive waste management, environmental compliance, maintenance, and conduct of operations).
Awareness/understanding of surveillance and maintenance drivers (e.g., regulations, DOE Orders, and other requirements).
Knowledge of the facility under evaluation, including its physical characteristics, operations and procedures.

**The facility personnel**, who during the interview will be providing the information for the RBSM analysis, should have the following background.

Recommended Background for Facility Support Personnel
Direct involvement in the planning or line management of the surveillance and maintenance activities being reviewed.
In-depth knowledge of the drivers and the basis for the current surveillance and maintenance activities at the facility.
In-depth understanding of the conduct of operations within the facility being reviewed.

In many cases, facilities find that it is necessary to have two individuals involved in the interview process, one with the necessary driver knowledge and another who can discuss the field operation of the activity. This makes the RBSM process more efficient and expeditious. However, in general, line managers (production managers, utility managers, radiation protection managers, etc.) are appropriate facility personnel since they are very familiar with the work and common facility practices.

#### **Team Members: Full or Part-time?**

Forming an RBSM review team requires determining if the review team participation will be on a full or part-time basis and how extensive a review will be conducted. Generally, it is better for RBSM review team members to be dedicated full-time to the review process rather than part-time. This applies more for personnel who will be facilitating the RBSM review process than for facility personnel participating, as review team members, in the interview process.

#### **Determining the Resources for the RBSM Review Team**

Because the RBSM process is simple and straight forward, it can be easily facilitated by dedicated personnel from within the facility **as long as** facility personnel maintain an **objective** outlook.

If the use of personnel from within the facility is not practical because of labor not being available, the facility could also consider using personnel from other facilities on site as resources to conduct the review. This option is probably better for the following reasons:

- Outside personnel can generally be more objective because they are not directly involved in facility planning or management;
- Outside personnel are not associated with the current facility operational culture and practices; and
- Outside personnel may bring different perspectives on how work can be performed because of experiences gained in organizations external to the facility.

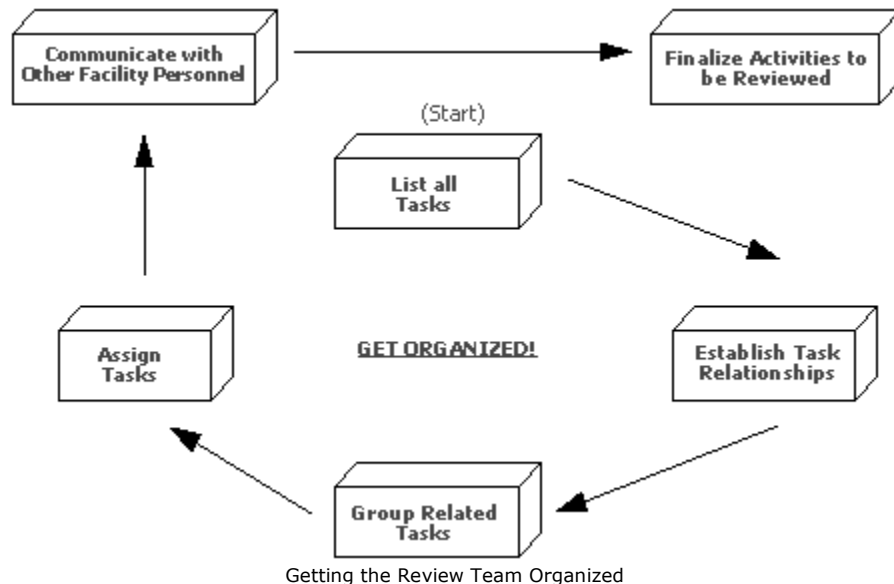
Lastly, if the use of personnel from other facilities on the site is not an option, consultants familiar with the development and implementation of the RBSM process may be brought in to conduct the reviews.

As a rule, the number of review team and facility personnel required to perform an RBSM review will largely depend on the number of activities and facility areas under evaluation. Other factors that will affect the use of personnel time, such as the amount of time allotted for performing the review and the level of detailed analysis needed by management to make decisions about which activities the team should be evaluating, should be evaluated.

In general, the fewer the people involved in the interview process, the more quickly the interview will be completed. However, individual facility and RBSM review team members who possess as much of the required knowledge as possible should be sought for the interviews to ensure a high quality product is generated.

## Organizing the Review Team for Maximum Effectiveness

Organizing the implementation of the RBSM review process is as simple as developing knowledge of the goal or plan and then progressing to a systematic division of the work among the members of the RBSM review team, as depicted in the figure below.



## Support Required from Other Facility Personnel

For other facility personnel, participating in the review process will generally consist of supporting the needs of the review team. Below are some steps to support the review team which will help to ensure a smooth review process:

- Define discrete facility work activities for each resource area (Radiation Protection, Operations, etc.) that may be evaluated under the RBSM review process;
- Provide requirements documentation (RCRA permits, authorization basis documents, conduct of operations, and other regulatory documentation) that the review team can use to both conduct reviews and tabulate the process data;
- Assemble facility financial information for the last fiscal year and year to date (detailed budgets, charge numbers, manpower loading and other) with S&M activities being reviewed; and
- Assign a facility point of contact who the team may call upon for facility and site data.

## Conducting Interviews - The RBSM Interview Form

The RBSM process is designed to be accomplished by the use of an interview form. This provides a structured, balanced approach in determining the disposition of an activity. This interview form is of two types depending on the knowledge level and experience the interviewer has:

### Self-directed -and- Contractor Facilitated

#### **Self-directed:**

This version of the RBSM Evaluation Form is designed for an interviewer with little experience in the RBSM process or little technical or operational knowledge of the area he/she is evaluating, and so in lies the benefit of using this version. However, it doesn't easily provide for flexibility in those cases where an interview answer is "Yes, but..."

The format is a simple "YES/NO" question outline. The interviewer simply follows the path outlined by the interviewee's "YES/NO" answers (i.e., If YES - Go to Question #A-4; if NO, Go to Question #A-8).

Ultimately, the interviewer will end the questioning with a YES or NO and the statement "This activity is a candidate for Cancellation" (or one of the other disposition categories).

To aid the interviewer in understanding the thought process behind this methodology, a **guidance package** is provided for each question posed by this interview form.

A copy of this form is provided below.

### **Requirements Based Surveillance and Maintenance Review Process Interview Form**

#### **General Information:**

A. Evaluator: \_\_\_\_\_ Organization: \_\_\_\_\_ Ph: \_\_\_\_\_

B. Interviewee: \_\_\_\_\_ Organization: \_\_\_\_\_ Ph: \_\_\_\_\_

C. Activity Name: \_\_\_\_\_

General/Administrative Support    Mission/Facility Support    (Circle One)

D. Safety Related:

☐ Yes

☐ No

E. Procedure#: \_\_\_\_\_

F. Charge Number: \_\_\_\_\_

G. Frequency for Conducting the Activity: (Circle One)

Hourly    Shift    Daily

Weekly    Bi-weekly    Monthly

Quarterly    Semi-Annually    Annually

Other: \_\_\_\_\_

H. Will the performance of this activity be required until this facility is dispositioned? If no, when will the performance of this activity no longer be required?

☐ Yes

☐ No; Date or Terminating Event: \_\_\_\_\_

I. Approximate number of personnel and man-hours required to complete the activity each time the activity is performed? (Include all support personnel and pre- and post-evolution time)

Number of Personnel: \_\_\_\_\_ Man-hours: \_\_\_\_\_

J. Comments: \_\_\_\_\_

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A-1.	Is the activity driven by a regulatory requirement? _____ (List)	Yes	No
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Yes - Go to Question # A-2

No - Go to Question # A-4

A-2.	Have operations or conditions changed significantly such that the driver is no longer applicable to this activity?	Yes	No
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Yes - **"Activity is a candidate for cancellation"**

No - Go to Question # A-3

A-3. Can and/or should this requirement be renegotiated? Yes/Maybe No

Yes/Maybe - **"Activity is a candidate for further evaluation."** Go To Section G

No - If Mission/Facility Support, then Go to Section B

If General/Administrative Support, then Go to Section E

A-4. Is the activity driven by a commitment to the DNFSB or to a stakeholder group? Yes No

Yes - Go to Question # A-5 \_\_\_\_\_ (List)

No - Go to Question # A-7

A-5. Have operations or conditions changed significantly such that the driver is no longer applicable to this activity? Yes No

Yes - **"Activity is a candidate for cancellation"**

No - Go to Question # A-6

A-6. Can and/or should this requirement be renegotiated? Yes/Maybe No

Yes/Maybe - **"Activity is a candidate for further evaluation."** Go To Section G

No - If Mission/Facility Support, then Go to Section B

If General/Administrative Support, then Go to Section E

A-7. Is the activity driven by a DOE Order? \_\_\_\_\_ (List) Yes No

Yes - Go to Question # A-8

No - Go to Question # A-14

A-8. Have operations or conditions changed significantly such that the driver is no longer applicable to this activity? Yes No

Yes - **"Activity is a candidate for cancellation"**

No - Go to Question # A-9

A-9. Has a documented evaluation been done to establish the need and the frequency or level of effort for this activity? Yes No

Yes - Go to question # A-10

No - Go to Question # A-11

A-10. Has the activity been revised to reflect the results of that evaluation? Yes No

Yes - **"Activity requires no further evaluation"**

No - If Mission/Facility Support, then Go to Section B

If General/Administrative Support, then Go to Section E

A-11. Has the order been revised in the last 2 years? Yes No

Yes - Go to Question # A-12

No - If Mission/Facility Support, then Go to Section B

If General/Administrative Support, then Go to Section E

A-12. Has the current activity been updated to reflect the revised DOE Order? Yes No

Yes - Go to Question # A-13



No - **"Activity is a candidate for further evaluation."** Go To Section G

A-13. Can and/or should relief be obtained from performing all or part of this activity? Yes/Maybe No

Yes/Maybe - **"Activity is a candidate for further evaluation."** Go To Section G

No- If Mission/Facility Support, then Go to Section B  
If General/Administrative Support, then Go to Section E

A-14. Is the activity addressed in an identified technical safety document? Yes No

Comment: \_\_\_\_\_

Yes - Go to Question # A-15

No - Go to Question # A-17

A-15. Have operations or conditions changed significantly such that the driver is no longer applicable to this activity? Yes No

Yes - **"Activity is a candidate for cancellation"**

No - Go to Question # A-16

A-16. Is the activity being conducted in accordance with that technical safety document? Yes No

Comment: \_\_\_\_\_

Yes - If Mission/Facility Support, then Go to Section C

If General/Administrative Support, then Go to Section F

No - **"Activity is a candidate for further evaluation."** Go To Section G

A-17. Is the activity being performed based on national commercial standards? Yes No

List: \_\_\_\_\_

Yes - Go to Question # A-18

No - If General/Administrative Support, then Go to # A-22

If Mission/Facility Support, then Go To # A-19

A-18. Have operations or conditions changed significantly such that the driver is no longer applicable to this activity? Yes No

Yes - **"Activity is a candidate for cancellation"**

No - If Mission/Facility Support, then Go to Section B

If General/Administrative Support, then Go to Section E

A-19. Is the activity being performed in accordance with a technical or vendor specification? Yes No

Comment: \_\_\_\_\_

Yes - Go to Question # A-20

No - Go to Question # A-22

A-20. Have operations or conditions changed significantly such that the driver is no longer applicable to this activity? Yes No

Yes - **"Activity is a candidate for cancellation"**

No - Go to Question # A-21

A-21. Has a graded approach been taken to the performance of this activity? Yes No

Yes - Go to Section D

No - "**Activity is a candidate for further evaluation.**" Go To Section G

A-22. Is the activity based on **best management practices** / **best practices** or on lessons learned? Yes No

(General / Admin Support) / (Mission / Facility Support)

Comment: \_\_\_\_\_

Yes - Go to Question # A-23

No - "**Activity is a candidate for cancellation**"

A-23. Have operations or conditions changed significantly such that the driver is no longer applicable to this activity? Yes No

Yes - "**Activity is a candidate for cancellation**"

No - If Mission/Facility Support, then Go to Section C

If General/Administrative Support, then Go to Section F

#### RBSM Prioritization Process Interview Form - Section B

---

B-1. Is the activity performed on a material? Yes No

Yes - Go to Question # B-2

No - Go to Question # B-4

B-2. Are there identified vulnerabilities with this material in its current configuration? Yes No

Comment: \_\_\_\_\_

Yes - Go to Question # B-3

No - "**Activity is a candidate for a frequency change**"

B-3. Is the activity being performed specifically to address these vulnerabilities? Yes No

Yes - "**Activity requires no further evaluation**"

No - "**Activity is a candidate for further evaluation.**" Go To Section G

B-4. Is the activity performed on a system or one of its components? Yes No

Yes - Go to Question # B-6

No - Go to Question # B-5

B-5. Is this activity performed on an area/room or on a piece of equipment? Area/room Equipment

Area/Room - Go to Question # B-10

Equipment - Go to Question # B-6

B-6. Is the **activity** being conducted or is the **system/component** or **equipment** being operated to support a current or future mission? Yes No  
(circle one)

Yes - Go to Question # B-7

No - "**Activity is a candidate for cancellation**"

B-7.	Is the <b>activity</b> being conducted or is the <b>system/component</b> or <b>equipment</b> being operated for a safety related purpose? (circle one)  Yes - Go to Question # B-8 No - Go to Question # B-9	Yes	No
B-8.	Is this safety related activity being conducted at a level greater than the minimal level required?  Yes - " <b>Activity is a candidate for a frequency change</b> " No - " <b>Activity requires no further evaluation</b> "	Yes	No
B-9.	Is the activity being conducted at a level greater than the minimal level required?  Yes - " <b>Activity is a candidate for a frequency change</b> " No - " <b>Activity is a candidate for further evaluation</b> "	Yes	No
B-10.	Is the activity being conducted to support a current or future mission?  Yes- Go to Question # B-11 No - " <b>Activity is a candidate for cancellation</b> "	Yes	No
B-11.	Is this activity being done for a safety related purpose?  Yes - Go to Question # B-12 No - Go to Question # B-13	Yes	No
B-12.	Is this safety related activity being conducted at a level greater than the minimal level required?  Yes - " <b>Activity is a candidate for a frequency change</b> " No - " <b>Activity requires no further evaluation</b> "	Yes	No
B-13.	Is this activity being conducted at a level greater than the minimal level required?  Yes - " <b>Activity is a candidate for a frequency change</b> " No - " <b>Activity is a candidate for further evaluation.</b> " Go To Section G	Yes	No

#### RBSM Prioritization Process Interview Form - Section C

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C-1.	Is the activity performed on a material?  Yes - Go to Question # C-2 No - Go to Question # C-4	Yes	No
C-2.	Are there identified vulnerabilities with this material in its current Configuration?  Yes - Go to Question # C-3 No - " <b>Activity is a candidate for a frequency change</b> "	Yes	No
C-3.	Is the activity being performed specifically to address these vulnerabilities?  Yes - " <b>Activity requires no further evaluation</b> " No - " <b>Activity is a candidate for further evaluation.</b> " Go To Section G	Yes	No
C-4.	Is the activity performed on a system or one of its components?	Yes	No

Yes - Go to Question # C-6  
No - Go to Question # C-5

- C-5. Is this activity performed on an area/room or on a piece of equipment?    Area/room    Equipment
- Area/Room - Go to Question # C-6  
Equipment - Go to Question # C-6
- C-6. Is the **activity** being conducted or is the **system/component** or **equipment** being operated to support a current or future mission? (circle one)    Yes    No
- Yes - Go to Question # C-7  
No - "**Activity is a candidate for cancellation**"
- C-7. Is the **activity** being conducted or is the **system/component** or **equipment** being operated for a safety related purpose? (circle one)    Yes    No
- Yes - "**Activity requires no further evaluation**"  
No - "**Activity is a candidate for further evaluation.**" Go To Section G

#### RBSM Prioritization Process Interview Form - Section D

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- D-1. Is the activity performed on a system or one of its components?    Yes    No
- Yes - Go to Question # D-3  
No - Go to Question # D-2
- D-2. Is this activity performed on an area/room or on a piece of equipment?    Area/Room    Equipment
- Area/Room - Go to Question # D-3  
Equipment - Go to Question # D-3
- D-3. Is the **activity** being conducted or is the **system/component** or **equipment** being operated to support a current or future mission? (circle one)    Yes    No
- Yes - Go to Question # D-4  
No - "**Activity is a candidate for cancellation**"
- D-4. Is the **activity** being conducted or is the **system/component** or **equipment** being operated for a safety related purpose? (circle one)    Yes    No
- Yes - "**Activity requires no further evaluation**"  
No - "**Activity is a candidate for further evaluation.**" Go To Section G

#### RBSM Prioritization Process Interview Form - Section E

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- E-1. Does this activity involve the management of records, data, information, etc.?    Yes    No
- Yes - Go to Question # E-2  
No - Go to Question # E-4
- E-2. Is this the only process on-site that can be used to perform this same task?    Yes    No
- Yes - Go to Question # E-3

No - **"Activity is a candidate for further evaluation."** Go To  
Section G

- |       |  |           |             |
|-------|--|-----------|-------------|
| E-3.  | Is the activity being conducted at a level greater than the minimal level required?  | Yes       | No          |
|       | <p>Yes - <b>"Activity is a candidate for a frequency change"</b><br/> No - <b>"Activity requires no further evaluation"</b></p>                              |           |             |
| E-4.  | Does the activity involve the development or review of policies, procedures or work plans?   | Yes       | No          |
|       | <p>Yes - Go to Question # E-5<br/> No - Go to Question # E-8</p>   |           |             |
| E-5.  | Is the activity being done for a safety related purpose?   | Yes       | No          |
|       | <p>Yes - Go to Question # E-6<br/> No - Go to Question # E-7</p>   |           |             |
| E-6.  | Is the activity being conducted at a level greater than the minimal level required?  | Yes       | No          |
|       | <p>Yes - <b>"Activity is a candidate for a frequency change"</b><br/> No - <b>"Activity requires no further evaluation"</b></p>                              |           |             |
| E-7.  | Is the activity being conducted at a level greater than the minimal level required?  | Yes       | No          |
|       | <p>Yes - <b>"Activity is a candidate for a frequency change"</b><br/> No - <b>"Activity is a candidate for further evaluation."</b> Go To<br/> Section G</p> |           |             |
| E-8.  | Does the activity involve personnel or the procurement of goods and services?  | Personnel | Procurement |
|       | <p>Personnel - Go to Question # E-9<br/> Procurement of Goods/Services - Go to Question # E-19</p>   |           |             |
| E-9.  | Does the activity involve personnel training or other routine requirements?  | Yes       | No          |
|       | <p>Yes - Go to Question # E-10<br/> No - Go to Question# E-13</p>  |           |             |
| E-10. | Does the activity support the current job assignment of the individual?  | Yes       | No          |
|       | <p>Yes - Go to Question # E-11<br/> No - <b>"Activity is a candidate for cancellation"</b></p>   |           |             |
| E-11. | Is the activity being provided/conducted more frequently than required?  | Yes       | No          |
|       | <p>Yes - <b>"Activity is a candidate for a frequency change"</b><br/> No - Go to Question # E-12</p>   |           |             |
| E-12. | Do all the personnel <u>in this job classification</u> need to meet this requirement?  | Yes       | No          |
|       | <p>Yes - <b>"Activity requires no further evaluation"</b><br/> No - <b>"Activity is a candidate for further evaluation."</b> Go To<br/> Section G</p>        |           |             |

E-13.	Does this involve activities related to stakeholder support? Yes - Go to Question # E-14 No - Go to Question # E-15	Yes	No
E-14.	Is the activity conducted at a level greater than that committed to? Yes - <b>"Activity is candidate for a frequency change"</b> No - <b>"Activity requires no further evaluation"</b>	Yes	No
E-15.	Does the activity involve the supervision or oversight of personnel? Supervision - Go to Question # E-16 Oversight - Go to Question # E-17	Supervision	Oversight
E-16.	Does this activity involve the management/supervision of fewer than five direct reports? Yes - <b>"Activity is a candidate for a frequency change"</b> No - <b>"Activity requires no further evaluation"</b>	Yes	No
E-17.	Does the driver specify the amount or frequency of oversight? Yes - Go to Question # E-18 No - <b>"Activity is a candidate for further evaluation."</b> Go To Section G	Yes	No
E-18.	Is the activity being performed at the specified frequency? Yes - <b>"Activity requires no further evaluation"</b> No - <b>"Activity is a candidate for a frequency change"</b>	Yes	No
E-19.	Is the procurement related to an identified safety class item? Yes - <b>"Activity requires no further evaluation"</b> No - Go to Question # E-20	Yes	No
E-20.	Are safety class requirements being applied anyway? Yes - <b>"Activity is a candidate for further evaluation."</b> Go To Section G No - <b>"Activity requires no further evaluation"</b>	Yes	No

#### RBSM Prioritization Process Interview Form - Section F

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F-1.	Does this activity involve the management of records, data, information, etc.? Yes - Go to Question # F-2 No - Go to Question # F-3	Yes	No
F-2.	Is this the only process on-site that can be used to perform this same task? Yes - <b>"Activity requires no further evaluation"</b> No - <b>"Activity is a candidate for cancellation"</b>	Yes	No
F-3.	Does the activity involve the development or review of policies, procedures or work plans? Yes - Go to Question # F-4 No - Go to Question # F-5	Yes	No

- |       |   |             |             |
|-------|---|-------------|-------------|
| F-4.  | Is the activity done for a safety related purpose?<br><br>Yes - <b>"Activity requires no further evaluation"</b><br>No - <b>"Activity is a candidate for further evaluation."</b> Go To Section G                             | Yes         | No          |
| F-5.  | Does the activity involve personnel or the procurement of goods and services?<br><br>Personnel - Go to Question # F-6<br>Procurement of Goods/Services - Go to Question # F-11  | Personnel   | Procurement |
| F-6.  | Does the activity involve personnel training or other routine requirements?<br><br>Yes - Go to Question # F-7<br>No - Go to Question # F-9  | Yes         | No          |
| F-7.  | Does the activity support the current job assignment of the individual?<br><br>Yes - Go to Question # F-8<br>No - <b>"Activity is a candidate for cancellation"</b>   | Yes         | No          |
| F-8.  | Do all the personnel in this job classification need to meet this requirement?<br><br>Yes - <b>"Activity requires no further evaluation"</b><br>No - <b>"Activity is a candidate for further evaluation."</b> Go To Section G | Yes         | No          |
| F-9.  | Does the activity involve the supervision or oversight of personnel?<br><br>Supervision - Go to Question # F-10<br>Oversight - <b>"Activity is a candidate for further evaluation."</b> Go To Section G                       | Supervision | Oversight   |
| F-10. | Does this activity involve the management/supervision of fewer than five direct reports?<br><br>Yes - <b>"Activity is a candidate for a frequency change"</b><br>No - <b>"Activity requires no further evaluation"</b>        | Yes         | No          |
| F-11. | Is the procurement related to an identified safety class item?<br><br>Yes - <b>"Activity requires no further evaluation"</b><br>No - Go to Question # F-12  | Yes         | No          |
| F-12. | Are safety class requirements being applied anyway?<br><br>Yes - <b>"Activity is a candidate for further evaluation."</b> Go To Section G<br>No - <b>"Activity requires no further evaluation"</b>                            | Yes         | No          |

#### RBSM Prioritization Process Interview Form - Section G

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1. For this "Further Evaluation" activity, the sub-bin is: (Circle One)  
  
A - **Incomplete information**  
  
Comment:

**B - Intent and/or appropriateness**

Comment:

**C - Further review of activities**

Comment:

**D - Further review/relief required**

Comment:

**Contractor facilitated:**

This version of the RBSM Evaluation Form is for the experienced RBSM interviewer, since the intent of this form is to guide the interviewer by collecting the information necessary for making a disposition recommendation. Because this form is intended to be used by experienced interviewers, no guidance package is provided.

A copy of this form is provided below.

**Requirements Based Surveillance and Maintenance (RBSM) Evaluation  
United States Department of Energy  
National Facility Deactivation Initiative**

\_\_\_\_\_  
Evaluator

\_\_\_\_\_  
Interviewee

\_\_\_\_\_  
Evaluator Organization

\_\_\_\_\_  
Interviewee Organization

\_\_\_\_\_  
Evaluator Phone #

\_\_\_\_\_  
Interviewee Phone #

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Facility Name: \_\_\_\_\_

Activity: \_\_\_\_\_

Function: (Check one) \_\_\_\_ Operations

- |  |  |
|--|--|
| <input type="checkbox"/> Radiation Protection      | <input type="checkbox"/> Training & Qualification          |
| <input type="checkbox"/> Maintenance-Electrical    | <input type="checkbox"/> Management Systems                |
| <input type="checkbox"/> Quality Assurance         | <input type="checkbox"/> Configuration Management          |
| <input type="checkbox"/> Emergency Management      | <input type="checkbox"/> Safeguards & Security             |
| <input type="checkbox"/> Engineering Program       | <input type="checkbox"/> Construction Program              |
| <input type="checkbox"/> Fire Protection           | <input type="checkbox"/> Packing & Transportation          |
| <input type="checkbox"/> Environmental Restoration | <input type="checkbox"/> Decontamination & Decommissioning |
| <input type="checkbox"/> Waste Management          | <input type="checkbox"/> Research & Development            |
| <input type="checkbox"/> Nuclear Safety            | <input type="checkbox"/> OSHA/Industrial Hygiene           |
| <input type="checkbox"/> Environmental Protection  | <input type="checkbox"/> Other _____                       |

Procedure: \_\_\_\_\_

Directive Document: \_\_\_\_\_



Driver: \_\_\_\_\_ Primary Driver: \_\_\_\_\_

Driver Required Frequency: \_\_\_\_\_

Actual Field Frequency: (Check One)

\_\_\_\_\_ Hourly \_\_\_\_\_ Shift \_\_\_\_\_  
\_\_\_\_\_ Daily \_\_\_\_\_ Weekly \_\_\_\_\_ Bi-Weekly \_\_\_\_\_ Monthly  
\_\_\_\_\_ Quarterly \_\_\_\_\_ Semi-Annually \_\_\_\_\_ Annually Other \_\_\_\_\_

Required vs Actual Variance Explanation: \_\_\_\_\_

Personnel Required: \_\_\_\_\_

Other Personnel Affected: \_\_\_\_\_

Time to perform Activity: \_\_\_\_\_ Annual Hours of Labor: \_\_\_\_\_

Potential Hours to be Re-Allocated: \_\_\_\_\_ Annually

Facility Mission: (Check one) \_\_\_\_\_ Current \_\_\_\_\_ Past \_\_\_\_\_ Future

Brief Explanation of Facility Mission:

List Milestones for Activity Termination:

Disposition Recommendation: (Check One)

\_\_\_\_\_ Cancellation \_\_\_\_\_ Further Evaluation  
\_\_\_\_\_ Deferral or Frequency Change \_\_\_\_\_ No Further Evaluation

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Disposition Analysis:

Other Possible Efficiencies:

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## RBSM Guidance Package

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The RBSM Guidance Package that includes the flow charts associated with the self-directed RBSM Interview Form is available in the following links:

1 - **Entire RBSM Guidance Package**

2 - **Checklist**

3 - **Interview form**